RECEIVED
CENTRAL FAX CENTER
JUN 13 2006

IN THE CLAIMS:

Please amend the claims as follows:

1. (Original) A method for preparing polyepitope chimeric gene vaccines, comprising the steps of:
   a) selecting, synthesizing and cloning into a vector a plurality of nucleic acid molecules each encoding a single epitope of an antigen of interest;
   b) constructing nucleic acid molecules encoding randomly combined bi-epitopes in the vectors of step a) by isocaudamer linkage;
   c) randomly assembling polyepitope chimeric genes with different lengths from the nucleic acid molecules encoding bi-epitopes of step b);
   d) isolating, purifying and amplifying polyepitope chimeric genes according to different length ranges, then subcloning them into expression vectors and transforming prokaryotic hosts, respectively to obtain polyepitope chimeric gene expression libraries in the corresponding length ranges;
   e) detecting differences of polyepitope chimeric genes in each expression library to ensure the high diversity of the gene libraries;
   f) immunizing animals with each polyepitope chimeric gene library, then detecting the immunogenicity of expression products of genes in the polyepitope chimeric gene libraries;
   g) determining one or more gene libraries containing optimally assembled polyepitope chimeric gene vaccines according to the results of step e) and f);
   h) screening polyepitope chimeric gene vaccines with high immunogenicity from gene libraries obtained in step g) by high-throughput immunochemistry methods.
2. (Original) The method according to claim 1, wherein the randomly assembling of the polyepitope chimeric genes with different lengths in step c) is carried out simultaneously by following two methods: combined polymerase chain reaction and primer-free polymerase chain reaction, and isocaudamer linkage in the vector for random assembling.

3. (Original) The method according to claim 1, wherein the antigen of interest in step a) is an antigen related to infectious diseases, tumors or autoimmune diseases.

4. (Original) The method according to claim 3, wherein the antigen of interest in step a) is an antigen of *Plasmodium falciparum*.

5. (Original) A polyepitope chimeric gene vaccine prepared by the method of claim 1.

6. (Original) A polyepitope chimeric gene vaccine according to claim 5, which is a gene vaccine against malignant malaria.

7. (Original) A method for preparing polyepitope chimeric genes for vaccine preparation, comprising the steps of:

   a) selecting, synthesizing and cloning into a vector a plurality of nucleic acid molecules each encoding a single epitope of an antigen of interest;

   b) constructing nucleic acid molecules encoding randomly combined bi-epitopes in the vectors of step a) by isocaudamer linkage;

   c) randomly assembling polyepitope chimeric genes with different lengths from the nucleic acid molecules encoding bi-epitopes of step b);

   d) selecting polyepitope chimeric genes according to different length ranges□cloning the polyepitope chimeric genes into expression vectors to obtain polyepitope chimeric gene expression libraries in the corresponding length ranges;

   e) detecting differences of polyepitope chimeric genes in each expression library to ensure the high diversity of the gene libraries used for vaccines.

8. (Original) The method according to claim 7, wherein the randomly assembling of the polyepitope chimeric genes with different lengths in step c) is carried out simultaneously by following two methods: combined polymerase chain reaction and primer-free polymerase chain reaction, and isocaudamer linkage in the vector for random assembling.

9. (Original) The method according to claim 7, wherein the antigen of interest in step a) is an antigen related to infectious diseases, tumors or autoimmune diseases.

10. (Original) The method according to claim 9, wherein the antigen of interest in step a) is an antigen of *Plasmodium falciparum*.

11. (Original) A polyepitope chimeric gene prepared by the method of claim 7.

Please add the following new claim:

12. (New) A protein obtainable by the expression of the polyepitope chimeric gene according to claim 11.